

between providers of such service,” and to repeal or modify any regulation that we find no longer necessary in the public interest.²⁰⁴ This Notice, in part, is one of the steps in our implementation of staff recommendations²⁰⁵ under Section 11 for deleting or modifying various Part 22 rules. In addition, the Notice considers other proposals submitted to the Commission by members of the public regarding changes to the Part 22 regulations, including those that do not fall within the scope of Section 11. We accordingly seek comment on changes to rules for each of the Part 22 services—Paging and Radiotelephone, Rural Radiotelephone, Air-Ground Radiotelephone, and Offshore Radiotelephone—other than cellular as well as our rules governing developmental authorizations.²⁰⁶ In addition to eliminating unnecessary regulatory hurdles, many of these proposals provide licensees with greater flexibility regarding the use of their spectrum, which in turn leads to greater technical, economic, and marketplace efficiency.²⁰⁷

In the Notice, we also propose to revise or eliminate certain Part 22 Public Mobile Services (PMS) rules that may have become obsolete as the result of technological change, increased competition in the Commercial Mobile Radio Services (CMRS), supervening changes to related Commission rules, or a combination of these factors. This Notice in addition proposes to recodify certain Part 22 PMS rules to Part 1 of our rules, amend several of our Part 1 rules, and make several conforming amendments to our Part 90 rules.

In the Notice, we also seek comment on ways to increase flexibility to enable licensees to better serve the public. For example, we seek comment on providing licensees of nationwide paging channels flexibility to provide other services²⁰⁸ and on whether our rules limiting the provision of dispatch service by paging licensees are too restrictive.²⁰⁹

²⁰⁴ 47 U.S.C. § 161(a)(2)&(b). In our *Cellular Year 2000 Biennial Report and Order*, we stated that “section 11 places the burden on the Commission to make the requisite determinations; no particular burden is placed on the opponents or proponents of a given rule.” Year 2000 Biennial Regulatory Review—Amendment of Part 22 of the Commission’s Rules to Modify or Eliminate Outdated Rules Affecting the Cellular Radiotelephone Service and Other Commercial Mobile Radio Services, *Report and Order*, FCC 02-229, at ¶4 (rel. Sept. 24, 2002) (*Cellular Year 2000 Biennial Report and Order*), citing *In the Matter of 2000 Biennial Regulatory Review Spectrum Aggregation Limits for Commercial Mobile Radio Services*, WT Dkt. No. 01-14, *Report and Order*, 16 FCC Rcd 22628, 22679 ¶25 (2001); *see also Second Report and Order*, FCC 02-247 (rel. Sept. 24, 2002); *Erratum*, DA 02-2969 (rel. Nov. 4, 2002).

²⁰⁵ *See* Biennial Regulatory Review, CC Docket No. 00-175, *Report*, FCC 00-456 (adopted Dec. 29, 2000; rel. Jan. 17, 2001) (*2000 Biennial Review Report*); Biennial Regulatory Review 2000 Updated Staff Report (rel. Jan. 17, 2001) (Staff Report); 2002 Biennial Regulatory Review, *Report*, FCC 02-342, 2003 WESTLAW (FEDCOM FCC) 1192543 (adopted Dec. 31, 2002; rel. March 14, 2003); The Commission Seeks Public Comment in the 2002 Biennial Review of Telecommunications Regulations Within the Purview of the Wireless Telecommunications Bureau, *Public Notice*, FCC 02-264 (rel. Sept. 26, 2002).

²⁰⁶ We are not here addressing the specific rules contained in Subpart J regarding the implementation of CALEA for Part 22 services. We are addressing implementation of CALEA in CC Docket No. 97-213. *See* *In the Matter of Communications Assistance for Law Enforcement Act*, *Order on Remand*, 2002 WESTLAW (FEDCOM FCC) 534605.

²⁰⁷ *See* FCC Staff Report, *Spectrum Policy Task Force Report*, ET Dkt. No. 02-135 (rel. Nov. 2002).

²⁰⁸ Notice at para. 56, *supra*.

²⁰⁹ *Id.* at para. 62, *supra*.

Specifically, to illustrate the proposals outlined above, the Notice seeks comment on elimination or modification of numerous Part 22 technical, operational and service rules.²¹⁰ For example, the Notice tentatively concludes that the directional antenna requirements set forth in section 22.363 and Table C-2 to section 22.361 should be eliminated.²¹¹ In addition to these rule changes, the Notice seeks comment on elimination of the requirement to file FCC Form 409 (Airborne Mobile RadioTelephone License Application) to apply for authority to operate an airborne station.²¹² The Notice also seeks comment regarding whether 47 C.F.R. § 1.929(c)(1) of our rules should be amended to specify that expansion of a composite interference contour (CIC) of a site-based licensee in the Paging and Radiotelephone Service—as well as the Rural Radiotelephone Service and 800 MHz Specialized Mobile Radio Service—over water, on a secondary, non-interference basis, should be classified as a minor (rather than major) modification of license.²¹³ Such reclassification would substantially reduce the filing requirements associated with these license modifications. Finally, the Notice seeks comment on recodification of section 22.157 (computation of distance) and section 22.159 (computation of terrain elevation) to Part 1 of the Commission's rules.²¹⁴ Subject to several exceptions, recodification of these rules to Part 1 would harmonize the methods for computing distance and terrain elevation applicable to Wireless Radio Services described in Parts 1, 20, 21, 22, 24, 27, 80, 87, 90, 95, 97, and 101 so that they are subject to the same requirements.

B. Legal Basis

The potential actions on which comment is sought in this Notice would be authorized under Sections 1, 4(i), 11, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 161, and 303(r).

C. Description and Estimate of the Number of Small Entities Subject to the Rules

The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.²¹⁵ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”²¹⁶ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.²¹⁷ A “small business

²¹⁰ The specific rules include: Sections 22.1(b), 22.3(b), 22.7, 22.99, 22.143(d)(4), 22.157, 22.159, 22.161, 22.351, 22.352, 22.361 (Table C-2), 22.363, 22.373, 22.379, 22.381, 22.383, 22.415, 22.503(g), 22.539, 22.563, 22.569, 22.591, 22.593, 22.601, 22.602, 22.625(a), 22.655(a) and (b), 22.725, 22.725(c), 22.729, 22.757, 22.805, 22.815, and 22.871 of the Commission's rules.

²¹¹ Notice at para. 40, *supra*.

²¹² *Id.* at paras. 25-27, *supra*.

²¹³ *Id.* at paras. 51-55, *supra*.

²¹⁴ *Id.* at paras. 32-34, *supra*.

²¹⁵ 5 U.S.C. § 603(b)(3).

²¹⁶ 5 U.S.C. § 601(6).

²¹⁷ 5 U.S.C. § 601(3) (incorporating by reference the definition of “small business concern” in 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public (continued....)

concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.²¹⁸

A small organization is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."²¹⁹ Nationwide, as of 1992, there were approximately 275,801 small organizations.²²⁰ "Small governmental jurisdiction" generally means "governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000."²²¹ As of 1992, there were approximately 85,006 such jurisdictions in the United States.²²² This number includes 38,978 counties, cities, and towns; of these, 37,566, or 96 percent, have populations of fewer than 50,000.²²³ The Census Bureau estimates that this ratio is approximately accurate for all governmental entities. Thus, of the 85,006 governmental entities, we estimate that 81,600 (96 percent) are small entities. In the following paragraphs, we further describe and estimate the number of small-entity licensees that may be affected if the proposals in this Notice are adopted. We enumerate the types of small entities described in this paragraph because many such entities use such services and, in some cases, are licensees.

This Notice could result in rule changes that, if adopted, would affect small businesses that currently are or may become Paging and Radiotelephone, Rural Radiotelephone, Air-Ground Radiotelephone, or Offshore Radiotelephone service providers regulated under Subparts E, F, G, and I of Part 22 of the Commission's rules, respectively. The proposed changes to Section 22.7 of the Commission's rules would, if adopted, affect Cellular Radiotelephone Service providers that are regulated under Subpart H of Part 22 of the Commission's rules.²²⁴ In addition, pursuant to Section 90.493(b) of the Commission's rules, paging licensees on exclusive channels in the 929-930 MHz bands are subject to the licensing, construction, and operation rules set forth in Part 22.²²⁵ As this rulemaking proceeding applies to multiple services, we will analyze the number of small entities affected on a service-by-service basis. In addition to service providers, some of the proposed rule changes may also affect manufacturers of telecommunications equipment. We will include a separate discussion regarding the number of small equipment manufacturing entities that are potentially affected by the proposed rule changes.

Cellular Radiotelephone Service. Neither the Commission nor the SBA has developed a definition of small entities applicable to cellular licensees. Therefore, the applicable definition of small
(Continued from previous page) _____
comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

²¹⁸ 15 U.S.C. § 632.

²¹⁹ 5 U.S.C. § 601(4).

²²⁰ 1992 Economic Census, U.S. Bureau of Census, Table 6 (special tabulation of data under contract to Office of Advocacy of the U.S. Small Business Administration).

²²¹ 5 U.S.C. § 601(5).

²²² U.S. Dept. of Commerce, Bureau of the Census, "1992 Census of Governments."

²²³ *Id.*

²²⁴ Notice at para. 28, *supra*.

²²⁵ See 47 C.F.R. § 90.493(b).

entity is the definition under the SBA rules applicable to radiotelephone (wireless) companies. This provides that a small entity is a radiotelephone company employing no more than 1,500 persons.²²⁶ We note that there are 1,758 cellular licenses; however, a cellular licensee may own several licenses. According to the most recent *Trends in Telephone Service* data, 858 carriers reported that they were engaged in the provision of cellular service, PCS, or SMR telephony, which are grouped together in the data.²²⁷ Of these, 567 have more than 1,500 employees; the remaining 291 are small business concerns under the SBA's definition. However, because data for cellular service, PCS, and SMR telephony are reported collectively, we are unable at this time to estimate how many of the 291 small business concerns are cellular service carriers. Consequently, we estimate that there are 291 or fewer small cellular service carriers that may be affected by the proposal to amend Section 22.7, if adopted.²²⁸

Paging and Radiotelephone Service. In the *Paging Second Report and Order and Further Notice of Proposed Rulemaking*, we adopted criteria for defining small businesses and very small businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.²²⁹ We have defined a "small business" as an entity that, together with its affiliates and controlling principals, has average gross revenues for the three preceding years of not more than \$15 million. A "very small business" is defined as an entity that, together with affiliates and controlling principals, has average gross revenues for the three preceding calendar years of not more than \$3 million. The SBA has approved these definitions.²³⁰ An auction of MEA licenses commenced on February 24, 2000, and closed on March 2, 2000. Of the 985 licenses auctioned, 440 were sold. Fifty-seven companies claiming small business status won licenses. An auction of MEA and EA paging licenses commenced on October 30, 2001, and closed on December 5, 2001. Of the 15,514 licenses auctioned, 5323 were sold. In this auction, high bids were placed by 130 entities that qualify as small businesses under the Commission's definition. Licenses have been granted to 128 of these entities, and the applications of the other entities remain pending. Thus, in addition to existing licensees, should the Commission adopt the rule changes proposed in the Notice, 130 license winners in the recent auction would be affected small entities.

In addition, the SBA defines small paging companies as an entity employing no more than 1,500 persons.²³¹ At present, there are approximately 24,000 Private Paging licenses and 74,000 Common Carrier Paging licenses. According to the most recent *Trends in Telephone Service* data, 576 carriers

²²⁶ 13 C.F.R. § 121.201, NAICS code 517212.

²²⁷ See Wireline Competition Bureau, Industry Analysis and Technology Division, "Trends in Telephone Service" at Table 5.3, page 5-5 (May 2002).

²²⁸ Notice at para. 28, *supra*.

²²⁹ Revision of Part 22 and Part 90 of the Commission's Rules To Facilitate Future Development of Paging Systems, *Second Report and Order and Further Notice of Proposed Rulemaking*, 12 FCC Rcd 2731, 2811-2812 (1997). These provisions were somewhat modified and clarified in Revision of Part 22 and Part 90 of the Commission's Rules To Facilitate Future Development of Paging Systems, *Memorandum Opinion and Order on Reconsideration and Third Report and Order*, 14 FCC Rcd 10030, 10085-10088 (1999). See also 47 C.F.R. §§ 22.217, 22.223.

²³⁰ See Letter to Amy J. Zoslov, Chief (Acting), Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, at 3-4 (Dec. 2, 1998).

²³¹ 13 C.F.R. § 121.201, NAICS code 517211.

reported that they were engaged in the provision of paging and messaging service.²³² Only 19 of the 576 carriers have more than 1,500 employees; the remaining 557 are small business concerns under the SBA's definition. Consequently, we estimate that there are 557 small paging carriers that may be affected by the proposed rules, if adopted. We estimate that the majority of private and common carrier paging providers would qualify as small entities under the SBA definition.

Air-Ground Radiotelephone Service. The Commission has not adopted a definition of small business specific to the Air-Ground Radiotelephone Service.²³³ Accordingly, we use the SBA definition applicable to cellular and other wireless telecommunication companies, *i.e.*, an entity employing no more than 1,500 persons.²³⁴ There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and the Commission estimates that almost all of them qualify as small entities under the SBA definition.

Offshore Radiotelephone Service. This service operates on several ultra high frequency (UHF) TV broadcast channels that are not used for TV broadcasting in the coastal area of the states bordering the Gulf of Mexico. At present, there are approximately 55 licensees in this service. The Commission has not adopted a definition of small business specific to the Offshore Radiotelephone Service. Accordingly, we use the SBA definition applicable to cellular and other wireless telecommunication companies, *i.e.*, an entity employing no more than 1,500 persons.²³⁵ The Commission is unable at this time to estimate the number of licensees that would qualify as small entities under the SBA definition. The Commission assumes, for purposes of this IRFA, that all of the 55 licensees are small entities, as that term is defined by the SBA.

Rural Radiotelephone Service. The Commission has not adopted a definition of small entity specific to the Rural Radiotelephone Service.²³⁶ A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio Systems (BETRS).²³⁷ We therefore use the SBA definition applicable to cellular and other wireless telecommunication companies, *i.e.*, an entity employing no more than 1,500 persons.²³⁸ There are approximately 1000 licensees in the Rural Radiotelephone Service, and the Commission estimates that almost all of them qualify as small entities under the SBA definition.

Equipment Manufacturers. Some of the proposed actions in the Notice could also affect equipment manufacturers. The Commission does not know how many equipment manufacturers are in the current market. The 1994 County Business Patterns Report of the Bureau of the Census estimates that there are 920 companies that make communications subscriber equipment. This category includes not only cellular, paging, air-ground, offshore, and rural radiotelephone equipment manufacturers, but

²³² *Trends in Telephone Service*, Table 5.3.

²³³ Air-ground radiotelephone service is defined in Section 22.99 of the Commission's rules, 47 C.F.R. § 22.99.

²³⁴ 13 C.F.R. § 121.201, NAICS code 517212.

²³⁵ *Id.*

²³⁶ Rural Radiotelephone Service is defined in Section 22.99 of the Commission's rules, 47 C.F.R. § 22.99.

²³⁷ BETRS is defined in Sections 22.757 and 22.729 of the Commission's rules, 47 C.F.R. §§ 22.757, 22.729.

²³⁸ 13 C.F.R. § 121.201, NAICS code 517212.

television and AM/FM radio manufacturers as well. Thus, the number of cellular, paging, air-ground, offshore, and rural radiotelephone equipment manufacturers is lower than 920. Under SBA regulations, a "communications equipment manufacturer" must have a total of 1000 or fewer employees in order to qualify as a small business concern.²³⁹ Census Bureau data from 1992 indicate that at that time there were an estimated 858 such U.S. manufacturers and that 778 (91 percent) of these firms had 750 or fewer employees and would therefore be classified as small entities.²⁴⁰ Using our current estimate of equipment manufacturers and the previous percentage estimate of small entities, we estimate that our current action may affect approximately 837 small equipment manufacturers.

D. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements

This Notice neither proposes nor anticipates any additional reporting, recordkeeping, or other compliance measures. If certain of the proposals in the Notice (*e.g.*, eliminating the section 22.655 requirement that certain paging licensees file channel usage reports,²⁴¹ or elimination of the requirement to file FCC Form 409 (Airborne Mobile Radiotelephone License Application) to apply for authority to operate an airborne station)²⁴² are adopted as a result of this proceeding, then we contemplate a reduction in these requirements. The reduction would be the same for all entities.

In addition to these rule changes, the Notice also seeks comment regarding whether section 1.929(c)(1) of our rules should be amended to specify that expansion of a composite interference contour (CIC) of a site-based licensee in the Paging and Radiotelephone Service—as well as the Rural Radiotelephone Service and 800 MHz Specialized Mobile Radio Service—over water on a secondary, non-interference basis should be classified as a minor (rather than major) modification of license.²⁴³ Such reclassification, if adopted, would substantially reduce the filing requirements associated with these license modifications.

E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.²⁴⁴

²³⁹ 13 C.F.R. § 121.201, NAICS code 334210 (1000 or fewer), 334220 (750 or fewer), 334290 (750 or fewer).

²⁴⁰ U.S. Dept. of Commerce, 1992 Census of Transportation, Communications and Utilities (issued May 1995), SIC code 3663 (estimate created by the Census Bureau under contract to the Office of Advocacy, SBA).

²⁴¹ Notice at paras. 68-70, *supra*.

²⁴² *Id.* at paras. 25-27, *supra*.

²⁴³ *Id.* at paras. 51-55, *supra*.

²⁴⁴ See 5 U.S.C. § 603(c)(1)-(c)(4).

As stated earlier, a number of the Commission's Part 22 technical, operational and service rules may be determined to be outdated. Therefore, modifying or eliminating these rules should decrease the costs associated with regulatory compliance for service providers, provide additional flexibility in the provision of service and manufacturing of equipment, and enhance the market demand for some services. We therefore anticipate that, although it seems likely that there will be a significant economic impact on a substantial number of small entities, there will be no adverse economic impact on small entities. In fact, certain of the proposed rule changes may particularly benefit small entities. For example, the Notice proposes that section 1.929(c)(1) should be amended to specify that expansion of the composite interference contour (CIC) of a site-based licensee in the Paging and Radiotelephone Service—as well as the Rural Radiotelephone Service and 800 MHz Specialized Mobile Radio Service—over water, on a secondary, non-interference basis to any geographic area licensee in the same area, is a minor, not a major, modification of license.²⁴⁵ Although adoption of such an amendment would benefit both small and large entities (because minor modifications are self-effectuating, while major modifications require FCC approval), the majority of businesses in these three radio services are small entities. The Notice further proposes that a site-based licensee expanding its CIC over water as defined above could do so on a permissive basis, with no notification to the Commission required. Many licensees in these services are small entities that could benefit from this rule change.

In the Notice, then, the Commission has set forth various options it is considering for each rule, from modifying rules to eliminating them altogether. As discussed in the Notice, the effect of any rule change on the regulatory burden of licensees will be a significant criterion in determining appropriate Commission action.²⁴⁶ We note that, with the exception of our reexamination of our rules governing the provision of air-ground telecommunications services on commercial airplanes in order to enhance the options available to the public,²⁴⁷ the entire intent underlying our actions here is to lessen the levels of regulation, consistent with our mandate for undertaking biennial reviews. We seek comment on any additional appropriate alternatives and especially alternatives that may further reduce economic impacts on small entities.

F. Federal Rules that May Duplicate, Overlap or Conflict with the Proposed Rules

None.

²⁴⁵ Notice at paras. 51-54, *supra*.

²⁴⁶ *Id.* at paras. 2 & 4, *supra*.

²⁴⁷ Notice at paras. 7-22, *supra*.

APPENDIX B

PROPOSED RULE CHANGES

Title 47, Part 1 of the Code of Federal Regulations, 47 CFR Part 1, is amended as follows:

1. The authority citation for Part 1 continues to read as follows:

AUTHORITY: 47 U.S.C. 151, 154(i), 154(j), 155, 225, 303(r), 309 and 325(e).

2. Section 1.903(c) is amended to read as follows:

(c) *Subscribers.* Authority for subscribers to operate mobile or fixed stations in the Wireless Radio Services, except for certain stations in the Rural Radiotelephone Service, is included in the authorization held by the licensee providing service to them. Subscribers are not required to apply for, and the Commission does not accept, applications from subscribers for individual mobile or fixed station authorizations in the Wireless Radio Services. Individual authorizations are required to operate rural subscriber stations in the Rural Radiotelephone Service, except as provided in § 22.703 of this chapter. Individual authorizations are required for end users of certain Specialized Mobile Radio Systems as provided in § 90.655 of this chapter. In addition, certain ships and aircraft are required to be individually licensed under Parts 80 and 87 of this chapter. See §§ 80.13, 87.18 of this chapter.

3. Section 1.929(c)(1) is amended to read as follows:

(1) In the Paging and Radiotelephone Service, Rural Radiotelephone Service and 800 MHz Specialized Mobile Radio Service (SMR), any change that would increase or expand the applicant's existing composite interference contour, except extensions of a composite interference contour over bodies of water that extend beyond county boundaries (i.e., including but not limited to oceans, the Gulf of Mexico, and the Great Lakes) on a secondary basis.

4. New Section 1.958 is added to Subpart F of Part 1 as follows:

§ 1.958 Distance computation.

The method given in this section must be used to compute the distance between any two locations, except that, for computation of distance involving stations in Canada and Mexico, methods for distance computation specified in the applicable international agreement, if any, must be used instead. The result of a distance calculation under Parts 21 and 101 of this chapter must be rounded to the nearest tenth of a kilometer. The method set forth in this paragraph is considered to be sufficiently accurate for distances not exceeding 475 km (295 miles).

(a) Convert the latitudes and longitudes of each reference point from degree- minute-second format to degree-decimal format by dividing minutes by 60 and seconds by 3600, then adding the results to degrees.

$$\text{LATX}_{dd} = DD + \frac{MM}{60} + \frac{SS}{3600}$$

$$\text{LONX}_{dd} = DDD + \frac{MM}{60} + \frac{SS}{3600}$$

(b) Calculate the mean geodetic latitude between the two reference points by averaging the two

latitudes:

$$ML = \frac{LAT1_{dd} + LAT2_{dd}}{2}$$

(c) Calculate the number of kilometers per degree latitude difference for the mean geodetic latitude calculated in paragraph (b) of this section as follows:

$$\begin{aligned} KPD \text{ sublat} = & 111.13209 - 0.56605 \cos 2ML \\ & + 0.00120 \cos 4ML \end{aligned}$$

(d) Calculate the number of kilometers per degree of longitude difference for the mean geodetic latitude calculated in paragraph (b) of this section as follows:

$$\begin{aligned} KPD \text{ sublon} = & 111.41513 \cos ML - 0.09455 \cos 3ML \\ & + 0.00012 \cos 5ML \end{aligned}$$

(e) Calculate the North-South distance in kilometers as follows:

$$NS = KPD \text{ sublat} \times (LAT1 \text{ subdd} - LAT2 \text{ subdd})$$

(f) Calculate the East-West distance in kilometers as follows:

$$EW = KPD \text{ sublon} \times (LON1 \text{ subdd} - LON2 \text{ subdd})$$

(g) Calculate the distance between the locations by taking the square root of the sum of the squares of the East-West and North-South distances:

$$DIST = \sqrt{NS^2 + EW^2}$$

(h) Terms used in this section are defined as follows:

- (1) LAT1 subdd and LON1 subdd are the coordinates of the first location in degree-decimal format.
- (2) LAT2 subdd and LON2 subdd are the coordinates of the second location in degree-decimal format.
- (3) ML is the mean geodetic latitude in degree-decimal format.
- (4) KPD sublat is the number of kilometers per degree of latitude at a given mean geodetic latitude.
- (5) KPD sublon is the number of kilometers per degree of longitude at a given mean geodetic latitude.
- (6) NS is the North-South distance in kilometers.
- (7) DIST is the distance between the two locations, in kilometers.

5. New Section 1.959 is added to Subpart F of Part 1 as follows:

§ 1.959 Computation of average terrain elevation.

Except as otherwise specified in § 90.309(a)(4) of this chapter, average terrain elevation must be calculated by computer using elevations from a 30 second point or better topographic data file. The file must be identified. If a 30 second point data file is used, the elevation data must be processed for intermediate points using interpolation techniques; otherwise, the nearest point may be used. In cases of dispute, average terrain elevation determinations can also be done manually, if the results differ significantly from the computer derived averages.

(a) Radial average terrain elevation is calculated as the average of the elevation along a straight line path from 3 to 16 kilometers (2 and 10 miles) extending radially from the antenna site. If a portion of the radial path extends over foreign territory or water, such portion must not be included in the computation of average elevation unless the radial path again passes over United States land between 16 and 134 kilometers (10 and 83 miles) away from the station. At least 50 evenly spaced data points for each radial should be used in the computation.

(b) Average terrain elevation is the average of the eight radial average terrain elevations (for the eight cardinal radials).

(c) For locations in Dade and Broward Counties, Florida, the method prescribed above may be used or average terrain elevation may be assumed to be 3 meters (10 feet).

6. Section 1.1102(16)(h) is removed.

7. Section 1.2003 is amended by deleting the phrase "FCC 409 Airborne Mobile Radio Telephone License Application;"

Title 47, Part 22 of the Code of Federal Regulations, 47 CFR Part 22, is amended as follows:

8. The authority citation for Part 22 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 222, 303, 309 and 332.

9. Section 22.1(b) is amended by revising it to read as follows:

(b) *Purpose.* The purpose of these rules is to establish the requirements and conditions under which domestic radio stations may be licensed and used in the Public Mobile Services.

10. Section 22.3(b) is amended by revising it to read as follows:

(b) Authority for subscribers to operate mobile or fixed stations in the Public Mobile Services, except for certain stations in the Rural Radiotelephone Service, is included in the authorization held by the licensee providing service to them. Subscribers are not required to apply for, and the FCC does not accept applications from subscribers for, individual mobile or fixed station authorizations in the Public Mobile Services, except that individual authorizations are required to operate rural subscriber stations in the Rural Radiotelephone Service, except as provided in § 22.703.

11. Sections 22.3(b)(1) and (2) are removed.

12. Section 22.7 is revised in its entirety to read as follows:

§ 22.7 General eligibility.

Any entity, other than those precluded by section 310 of the Communications Act of 1934, as amended, 47 U.S.C. 310, is eligible to hold a license under this part. Applications are granted only if the applicant is legally, financially, technically and otherwise qualified to render the proposed service.

13. Section 22.99 is amended by removing the definitions of "Meteor burst propagation mode," "Radio Common Carrier," and Wireline Common Carrier".

14. Section 22.99 is amended by eliminating the sentence "See, for example, § 22.161." in the definition of "Channel."

15. Section 22.99 is amended by replacing the term "common carrier" with the term "licensee" in the definitions of "Air-Ground Radiotelephone Service," "Cellular Radiotelephone Service," "Offshore Radiotelephone Service," "Public Mobile Services," and "Rural Radiotelephone Service."

16. Section 22.99 also is amended by correcting the term "Air-ground Radiotelephone Service" to the term "Air-Ground Radiotelephone Service" in the definitions of "Communications channel," "Control channel," and "Ground station."

17. Section 22.143(d)(4) is amended to read as follows:

(4) For any construction or alteration that would exceed the requirements of § 17.7 of this chapter, the licensee has notified the appropriate Regional Office of the Federal Aviation Administration (FAA Form 7460-1), filed a request for antenna height clearance and obstruction marking and lighting specifications (FCC Form 854) with the FCC at WTB, Database Management Division, Analysis and Development Branch, 1120 Fairfield Road, Gettysburg, PA 17325 or electronically via the FCC Antenna Structure Registration homepage, wireless.fcc.gov/antenna/;

18. Section 22.157 is removed.

19. Section 22.159 is removed.

20. Section 22.161 is removed.

21. Section 22.351 is amended to read as follows:

§ 22.351 Channel assignment policy.

The channels allocated for use in the Public Mobile Services are listed in the applicable subparts of this part. Channels and channel blocks are assigned in such a manner as to facilitate the rendition of service on an interference-free basis in each service area. Except as otherwise provided in this part, each channel or channel block is assigned exclusively to one licensee in each service area. All applicants for, and licensees of, stations in the Public Mobile Services shall cooperate in the selection and use of channels in order to minimize interference and obtain the most efficient use of the allocated spectrum.

22. Section 22.352 is amended by revising the first sentence of this section to read as follows:

Public Mobile Service stations operating in accordance with applicable FCC rules and the terms and conditions of their authorizations are normally considered to be non-interfering.

23. Section 22.352(c)(7) is revised to read as follows:

(4) *In-building radiation systems.* No protection is provided against interference to the service of in-building radiation systems.

24. Section 22.361 and Table C-2 thereto are removed.

25. Section 22.363 is removed.

26. Section 22.373 is removed.

27. Section 22.379 is removed.

28. Section 22.381 is removed.

29. Section 22.383 is removed.

30. Section 22.415 is removed.

31. Section 22.503(g) is amended by adding new subsection (4) to read as follows:

(4) The application is for a minor modification of license to expand a licensee's composite interference contour over water on a secondary, non-interference basis under section 1.929(c)(1) of this chapter.

32. Section 22.539 is removed.

33. Section 22.563 is amended to read in its entirety as follows:

§ 22.563 Provision of rural radiotelephone service.

Channels in the frequency ranges 152.03-152.81, 157.77-158.67, 454.025-454.650 and 459.025-459.650 MHz, inclusive, are also allocated for assignment in the Rural Radiotelephone Service.

34. Section 22.569 is removed.

35. Section 22.591 is amended by removing the chart entitled "Microwave channels."

36. Section 22.591(b) is removed and reserved

37. Section 22.593 is revised to read in its entirety as follows:

§ 22.593 Effective radiated power limits.

The effective radiated power of fixed stations operating on the channels listed in § 22.591 must not exceed 150 Watts.

38. The introductory paragraph of Section 22.601 is amended to read as follows:

§ 22.601 Assignment of microwave channels.

Assignment of the 2110-2130 and 2160-2180 MHz channels (formerly listed in § 22.591) is subject to the transition rules in § 22.602. No new systems will be authorized under this part.

* * *

39. The introductory paragraph of Section 22.602 is amended to read as follows:

§ 22.602 Transition of the 2110-2130 and 2160-2180 MHz channels to emerging technologies.

The 2110-2130 and 2160-2180 MHz microwave channels (formerly listed in § 22.591) have been allocated for use by emerging technologies (ET) services. No new systems will be authorized under this part. The rules in this section provide for a transition period during which existing Paging and Radiotelephone Service (PARS) licensees using these channels may relocate operations to other media or to other fixed channels, including those in other microwave bands. For PARS licensees relocating operations to other microwave bands, authorization must be obtained under Part 101 of this chapter.

* * *

40. Section 22.625(a) is amended to read as follows:

- (a) *928-960 MHz*. In this frequency range, the required minimum distance separation between co-channel fixed transmitters is 113 kilometers (70 miles).

41. Section 22.655(a) and (b) are removed, and Section 22.655(c) is renumbered 22.655(a).

42. The title of Section 22.725 is amended to read as follows:

§ 22.725 Channels for conventional rural radiotelephone stations and basic exchange telephone radio systems.

43. The first sentence of the introductory paragraph of Section 22.725 is amended to read as follows:

The following channels are allocated for paired assignment to transmitters that provide conventional rural radiotelephone service and to transmitters in basic exchange telephone radio systems.

44. Section 22.757 is amended to read in its entirety as follows:

§ 22.757 Channels for basic exchange telephone radio systems.

The channels listed in § 22.725 are also allocated for paired assignment to transmitters in basic exchange telephone radio systems.

45. Section 22.805 is removed.

46. Section 22.815 is revised to read in its entirety as follows:

§ 22.815 Construction period for general aviation ground stations.

The construction period (see § 1.946) for general aviation ground stations is 12 months.

47. Section 22.871 is removed.

48. Section 22.1003 is revised in its entirety to read as follows:

§ 22.1003 General eligibility.

Any entity, other than those precluded by section 310 of the Communications Act of 1934, as amended, 47 U.S.C. 310, is eligible to hold a license under this subpart. Applications are granted only if the applicant is legally, financially, technically and otherwise qualified to render the proposed service.

Title 47, Part 90 of the Code of Federal Regulations, 47 CFR Part 90, is amended as follows:

49. The authority citation for Part 90 continues to read as follows:

AUTHORITY: Sections 4(i), 11, 303(g), 303(r), and 332(c)(7) of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 161, 303(g), 303(r), 332(c)(7).

50. Section 90.309(a)(1) is amended to read as follows:

§ 90.309 Tables and figures.

(a) Directions for using the tables.

(1) Using the method specified in § 1.958 of this chapter, determine the distances (i) between the proposed land mobile base station and the protected cochannel television station and (ii) between the proposed land mobile base station and the protected adjacent channel television station. If the exact mileage does not appear in table A for protected cochannel television stations (or table B for channel 15 in New York and Cleveland and channel 16 in Detroit) or table E for protected adjacent channel television stations, the next lower mileage separation figure is to be used.